APPENDIX

NOTES FOR FOMC MEETING
JULY 5, 1989

SAM Y. CROSS

During the past three months, the dollar experienced two bouts of strong upward pressure. The first episode, which started in late April, was fed largely by investment-related demand for dollars and a world-wide adjustment in portfolios. This demand appeared to peak in late May and by the end of that month the dollar had started to move down. The second episode then was initiated when political upheaval in China unleashed another set of pressures, and the dollar moved up again as capital flowed out of Asia. During the course of this second bout of upward pressure, speculators came to play an increasingly active role in pushing the dollar higher, and the weakening of the yen associated with Japan's political difficulties also has been an important contributing factor.

The U.S. monetary authorities resisted the dollar's rise throughout this period with persistent and at times heavy intervention. For the intermeeting period as a whole, they sold nearly $10 billion against marks and yen. These operations helped to keep the dollar's rise in check, so the dollar is once again trading near the level where it was when you last met. The strongest upward pressures, the heaviest intervention, and the highest dollar rates occurred around mid June. Since then, the adjustment of portfolios has begun to fade, the speculators found themselves overextended and vulnerable to central bank intervention, and political uncertainties have lost some of their force. Moreover, questions have arisen about whether the prospects for growth and interest rates are so favorable to the dollar as once supposed. Under these circumstances, the pressures on the dollar receded and subsequently intervention was much more modest. As of now, the rates for dollar/yen and for dollar/mark have declined from their intermeeting period highs by roughly 8 or 9 percent to trade below the levels that market participants had believed to be the top of the unannounced ranges set for the dollar by G-7.

Throughout both episodes of upward pressure, investment-related demand for dollars was important, reflecting an unusual combination of developments in the U.S. economic and political environment. The foreign exchange markets, having gained comfort earlier this year from their perception that the Federal Reserve's monetary policy stance was relatively tight, grew increasingly confident that the U.S. economic expansion would glide into a "soft landing"--where a gentle slowdown to a more sustainable pace would relieve inflationary pressures and yet allow for a continued reduction in the trade and fiscal deficits. With the United States farther along the cyclical curve than other countries, and the expectation that the next interest rate changes would be down in the United States and up in Europe and Japan, funds were attracted here looking for capital gains. The many political uncertainties abroad--in Japan, in Germany, in Britain--also enhanced the dollar as a currency of denomination for investment. This was partly because the investment outlook here was presumed to be more stable and predictable, and partly because of a view that funds could be parked here with some assurance that U.S. markets could provide the liquidity to permit a redeployment when uncertainties abroad are resolved.

Thus, investors sought to increase the share of dollar-denominated assets in their portfolios, even as interest rate differentials narrowed by as much as 200 basis points since April. Investors increased their dollar exposure partly by buying U.S.

equities and fixed income securities, thereby contributing to the rallies in the U.S. capital markets. But perhaps even more importantly, they reduced the hedges they had previously set up to protect themselves against exchange-rate loss on dollar portfolios. The performance of the dollar in the exchange markets during 1988 and 1989 made it appear less necessary for investors and corporate customers alike to maintain these hedges. We hear for example, that Japanese insurance companies reduced their hedges from about 60 percent to 35 percent of their portfolios, mainly during May and early June. Our sense was that if dollar exchange rates were allowed to ratchet still higher, the dynamics of the market would reinforce this trend and lead to further dehedging and increases in dollar exposures.

Mr. Chairman, let me comment on the intervention we have undertaken. During this intermeeting period, U.S. operations were much heavier than in earlier periods, as intervention was used to attempt to shield the economy and domestic financial markets from the full force of potentially reversible and destabilizing pressures in the exchange market. It is hard to see what possible gain there would be from a further sharp and unsustainable rise in the dollar from the levels it had reached. In the circumstances, the Desk conducted some of its largest operations to date. We had to request two extensions of the intermeeting limits that the Committee has in place, though I should point out that these intermeeting limits were last changed in the late 1970's when the size of the foreign exchange market was a fraction of what it is today, perhaps one-tenth as large. In the event, with the operations of this period, we have increased U.S. foreign exchange reserves substantially--the Treasury and the Federal Reserve together now hold more than $20 billion equivalent of marks and almost $10 billion of yen. We are in a much more comfortable reserve position than we were only 18 months ago, for example, when the dollar was at an all time low and falling, and our yen balances were virtually down to zero.

Mr. Chairman, I would like to request the Committee's approval of the foreign exchange operations during the intermeeting period. Of the Desk's total dollar sales, the Federal Reserve share was $3,153.75 million sold against yen and $1,814.75 million sold against marks. Also, as we have reported earlier, the Federal Reserve warehoused $3 billion of Deutschemarks for the Exchange Stabilization Fund of the U.S. Treasury in accordance with existing agreements.

FOMC Notes
Joan E. Lovett
July 5-6, 1989

Desk operations initially sought to maintain the degree of reserve pressure prevailing at the time of the last meeting. The path allowance for borrowing was technically adjusted to $600 million in recognition of increased usage, particularly for the seasonal program, but Fed funds were expected to remain in the 9 3/4 - 9 7/8 percent area. The borrowing allowance was reduced to $500 million following the Committee's consultation on June 5, with funds expected to trade mostly in a 9 1/2 - 9 5/8 percent range. The Desk continued to view the allowances flexibly, given ongoing uncertainty about the relationship of borrowing and funds rates.

Borrowing ran a bit below expectations in the first two maintenance periods and somewhat above thereafter, averaging about $560 million for the full intermeeting period through yesterday. The higher levels from mid-June on came primarily from increasing demand for seasonal credit as such use rose from about $350 million at the period's start to about $500 million more recently. Meanwhile, reserve overages and market perceptions of some lessening of reserve pressures caused the funds rate to trade to the low end of expectations for much of the period except for some mild firming around the quarter-end. The rate averaged 9.61 percent for the full period through yesterday.

The dominant influences on reserve flows over the period came from the intervention activity just noted by Mr. Cross and the wide swings in Treasury balances. Fed and Treasury dollar sales--some $10 billion in total--elevated reserve levels considerably over the period. The drop in Treasury balances from the swollen tax peaks of late April and early May released a substantial volume of reserves early in the intermeeting interval before quarterly June tax receipts caused the balance to bulge back up again later on. Consequently, the Desk faced increasing needs to drain reserves over the first 2 1/2 maintenance periods and a temporary need to add in late June.

Given this profile, most of the reserve adjustments were made with temporary operations. MSP's were arranged frequently into the third period, often for several days at a time. The Desk managed the reserve absorption with particular care in early June in order to keep signals neutral around the time of the Committee's discussions and then to let the modest easing move show through. Some $2.8 billion of permanent reserve absorption was done earlier in the intermeeting period through bill redemptions and sales to foreign accounts. The Desk tempered its use of outright operations so as not to exacerbate an expected large--albeit temporary--need to add reserves in late June. As it turned out, the late-June reserve shortage was moderated by continued increases in foreign currency holdings and a few rounds of RPs sufficed to meet the need. With Treasury balances having now moved back to normal levels, prospective drain needs loom large, and we started to meet them by running off bills again in this past Monday's auction and resuming sales to foreign accounts over recent days.

In light of those needs, Mr. Chairman, I would like to request Committee approval of a temporary increase in the intermeeting leeway from the normal $6 billion to $8 billion. The projected overage is of sufficient depth and duration that the added leeway will provide greater flexibility should the need be enlarged beyond the current forecast.

In the market, meanwhile, the climate went from mildly positive at the outset to positively euphoric at times. Rates dropped considerably further, though the move down was not uniform. The interval was marked by periodic sharp rallies and intermittent give-backs. Given the magnitude and speed of these moves at times, activity was often choppy and nervous. The persistent strength of the dollar provided the basis for early gains, bringing with it a steady flow of foreign buying and an undercurrent of speculation that the System would ease to stem the dollar's rise. Such speculation was particularly pronounced around the time of foreign rate hikes both early and late in the period. The sharpest rally was ignited in early June following the report of a 101,000 rise in May NFP, much less than expected, and by the Purchasing Manager's survey index for May which edged under 50 percent for the first time in almost three years. The dollar strengthened despite these data, lifted in part by the turmoil that erupted in China at about the same time. Buying of Treasuries became frenzied at times amid strong foreign demand for dollar assets. Domestic investors--who had held out in hopes for a correction--jumped in too. Some of these participants felt that yields had declined too quickly to be sustained but, with many portfolios underweighted relative to performance indices ahead of the quarter-end and yield retrenchments grudging, they too joined the buying spree. While the System's move toward ease was perceived to be modest, the direction of the move was considered to be more important.

Meanwhile, data on inflation were not positive but did not present a protracted impediment to the rally, in large part because participants seemed to hold out hopes that the worst news on prices was now behind. This was true early in the period when the market shrugged off the May PPI report, showing a 0.9 percent rise and later in the period when the May CPI rose by 0.6 percent. By then, evidence of slowing economic growth supported hopes for a concomitant easing of price pressures. A flurry of articles on the P* model tended to be read in this direction as well.

For the full period, yields on Treasury coupon issues declined by about 70 to 90 basis points. Though, I should note that some back up this morning trimmed those declines a bit. Yield declines in the long end of the market initially outpaced other maturities but the rest of the curve eventually followed, and the largest cumulative declines were in the 2- to 5-year sector. As a result, the yield curve from one- to thirty-years was again essentially flat by the close, and today's price action actually gave the curve a positive tilt. The yield on the 30-year bond approached 8 percent several times toward the close, a level which many participants see difficulty in breaking much below. The Treasury raised $7.7 billion in the coupon market over the period, a modest amount in relation to market appetite. There is already discussion in the market of possible constraints on the size of quarterly financing in August if debt ceiling legislation gets hung up. In terms of other potential supply, the market has not been able to prepare for the potential thrift-rescue plan as the ultimate form--off-budget or on--remains in the air.

In the bill market, rates were down by 25 to 70 basis points. The smallest declines were in the very short end of the market where relatively high day-to-day financing rates had the greatest impact. But technical conditions remained relatively good as the Treasury continued to pay down bills--another $11.3 billion over the period. These paydowns outweighed intermittent foreign sales over the period as well as Desk redemptions. In the bill auction this past Monday, new 3- and 6-month bills were sold at 7.96 and 7.63 percent, respectively, down from average discount rates of 8.21 and 8.19 percent just before the last meeting.

As to the market's outlook, participants uniformly agree that the economy has slowed but there are significant differences as to the degree. Some see continued weakness while some still harbor concerns that a potential rebound lies ahead. Most seem to expect real growth at about 2 percent in the current quarter, tapering off to around 1 1/2 - 2 percent over the balance of the year. While inflation fears have receded, many express skepticism that the rate will drop much below 5 percent in the foreseeable future. Consequently, System easing moves are expected to be gradual and cautious. Participants note that such was the FOMC's approach on the way up, and they look for a similar response on the way down. Most expect the next modest move toward accommodation to follow the Committee meeting, barring any nasty surprises in Friday's employment report.

JEL/mm

M.J. Prell
July 5, 1989

Chart Show Presentation -- Domestic Economic Outlook

The first chart in the package lays out the basic premises underlying the staff's economic forecast. At the top of the list is the assumption that it is the objective of the Committee to bring about a gradual reduction in the underlying rate of inflation. Next, we have assumed that fiscal policy will be on a moderately restrictive course over the next few years. Mother Nature is assumed to provide farmers with the weather conditions needed to produce normal crop yields later this year. And OPEC output restraint is assumed to be insufficient to sustain crude oil prices at the recent high levels.

In part from these assumptions flow the following financial projections. First, no movements in interest rates of major economic significance are expected within the forecast period. As we suggested in the Greenbook, however, we believe that there may be some tendency for rates, especially in the short end of the market, to move a little lower next year as inflationary pressures begin to abate. Second, owing to the easing of rates that already has occurred, monetary velocity is projected to weaken a bit in the near term, and M2 is expected to increase around 4 percent this year and 6-1/2 in 1990. And finally, the dollar is projected to depreciate at a moderate pace.

Chart 2 summarizes the resulting staff forecast. Real GNP is expected to grow just over 1-1/2 percent this year and next, abstracting from the rebound in farm output after last year's drought.

The unemployment rate drifts up to just over 6 percent, a level that we are presuming implies enough slack to put downward pressure on wage and price inflation. In our forecast, these disinflationary effects begin to emerge during 1990, but not early enough to show through clearly on the four-quarter changes shown in the bottom panel. Assuming that the margin of slack in resource utilization is sustained, however, we would project a noticeably smaller increase in the price level in 1991.

The next chart presents a tabulation of your own forecasts for 1989 and 1990. We defined the central tendency fairly broadly, encompassing the middle two-thirds of forecasts. For 1989, the central tendency for GNP growth, at 1-1/2 to 2-1/2 percent, has slipped down from what was reported to the Congress in February. The drop would be less marked if one were to take a narrower cut, as the majority of you are between 2 and 2-1/2 percent. For inflation, the central tendency has moved up to 5 to 5-1/2 percent. For 1990, the central tendency view is that growth will run in the 1 to 2 percent range, with a large group clustered between 1-1/2 and 2 percent, while the CPI central tendency is 4 to 5 percent, with most in the 4-1/2 to 5 percent range.

As you know, the Administration has yet to announce the economic assumptions that will underlie the FY1990 budget projections, and we understand that they will not do so until July 18. The growth numbers shown for 1989 bracket the three options they've said they are considering. I think that we can safely predict that their scenario will remain on the rosy side of yours.

Like your central tendency for 1989, the staff's projection of real GNP growth this year also has been trimmed. A considerable portion of this change in our forecast reflects a shortfall already recorded earlier this year, in which consumer spending played a big part. The upper left panel of chart 4 shows the deceleration in overall consumer outlays and the absolute decline of late in real spending on nonauto goods. Frankly, the drop, especially in some categories of nondurables, is so sharp as to raise doubts in my mind about whether these numbers will hold up in future revisions; nonethéless, the breadth of the softening this year suggests that there has indeed been some pull-back in consumer demand.

The explanation for that pull-back does not appear to be found in the behavior of personal income. To be sure, the first-quarter run-up in the total, shown at the right, included an assumed jump in farm income that might not exert much influence on current spending. But, even if one looks at the weaker increase on net this year in labor income, the red line, the observed degree of slowing in spending is not fully explained.

One suspect, of course, is the rise in interest rates. Even though much of the slackening in demand is indicated to be in what we normally think of as the less interest-sensitive components of spending, survey evidence suggests that rising rates did cause people to worry more about economic prospects. Taking a longer view of spending behavior, as in the middle panel, however, it is noteworthy that the slide in the share of income going to consumption since the stock market peak in 1987 fits rather nicely with the pattern of household net worth.

Partly on the assumption that household wealth will not be moving radically one way or the other relative to income, we have projected that outlays will track fairly closely with disposable income from here on, producing increases of only 1-1/2 percent in real PCE in 1989 and 1990.

Your next chart focuses on an area of spending that clearly is interest-sensitive: housing. As you can see in the upper panel, we are expecting to see some pickup in both single and multifamily starts from the low levels of the spring. Given the size of the decline in long-term interest rates that has occurred, the projected rise in single family building is not especially large. Projected slow income growth and changing demographics are two reasons. A third is the flatness of the yield curve and conditions in the secondary mortgage market.

As indicated in the middle left panel, rates on adjustable-rate loans have retraced only a small part of their earlier run-up. Absent a resurgence of teaser activity, our interest rate path would suggest that the ARM rates will remain relatively high. The flat yield curve has had an effect in the secondary market, too, by hampering the underwriting of derivative mortgage instruments. Meanwhile, the market has had to operate under the shadow of potential sales of mortgage-backed securities by troubled thrifts. These tensions are reflected in the widening spread between GNMA and Treasury rates shown at the right, which, in turn, has curbed somewhat the decline in rates on fixed-rate loans in the primary market. Passage of the thrift legislation may ease the situation a bit, but we shall have to see how the actual resolution of cases proceeds.

The bottom left panel suggests that the recent drop in mortgage rates significantly improved the affordability of new homes, but that there still is a considerable problem in the Northeast.

Regional disparities also exist in the multifamily area, as reflected in the figures plotted at the right. There has been a noticeable decline in rental vacancies in the South over the past year or so. Given the overall supply picture, however, we do not expect to see booming multifamily construction any time soon.

Nonresidential construction activity also is projected to be less than booming, as indicated in the top panel of the next chart. There may be some carry-through of the recent pickup in industrial building, but given the overhang of office and other commercial space, total investment in nonresidential structures seems likely to edge off over the forecast period. Meanwhile, a sharp deceleration is predicted for equipment spending, which has been quite robust of late. On net, as indicated at the right, growth in real business fixed investment is expected to slow to only 2 percent by next year.

On the surface, our projection for BFI in the current year appears to be appreciably below what would be indicated by the surveys of spending plans taken in April and May. In nominal terms, we have BFI rising 7 percent, year over year, 3 percent below the Commerce survey result reported in the middle left panel. However, given conceptual differences and other technical considerations, this differential probably implies only a modest upside risk to our forecast. A considerable softening in spending would be expected because of the usual accelerator effects associated with a slowdown in overall output growth. Perhaps we can already detect some hint of this in the new orders for nondefense capital goods, plotted at the right, which have lost a good bit of their upward momentum in recent months.

In contrast to the strength in fixed investment thus far this year, inventory investment has been surprisingly subdued. Our impression is that manufacturers have been quick to adjust production to the weakening in final demand, and that they have kept their stocks quite lean. At the retail and wholesale levels, the picture is more mixed. Apart from the well-known predicament of auto dealers, we think that moderate overhangs may have emerged this year in some other segments of retailing. However, a drop-back in imports of consumer goods and a softening in U.S. production of late suggests again a fairly prompt adjustment that should head off more serious problems.

As is illustrated at the right, we are looking for rather moderate rates of inventory accumulation in the period ahead, as manufacturing activity remains sluggish.

Completing the tour of the major components of domestic spending, chart 7 focuses on the government sector. State and local purchases, in the upper panel, are forecast to grow at around a 2 percent rate, matching the current Commerce estimate for the first quarter. Desires to spend are likely to be constrained in many locales by budgetary pressures. The operating deficit of the sector, the national income account measure that excludes retirement trust funds, is projected to remain sizable.

At the federal level, spending restraint is the order of the day, with defense purchases likely to remain in a downtrend.

The bottom panel summarizes our fiscal outlook, which incorporates assumptions in line with the 1990 Budget Resolution. With the revenue surprise of this past spring, it looks like the deficit for the current fiscal year may come in at about $148 billion, while our forecast for FY90 is just within the $110 billion sequestration trigger for that year. The memo item in the table is our measure of the fiscal impetus to aggregate demand, and the negative numbers there for 1989 and 1990 imply restraint.

As I indicated earlier, we believe that restraint on economic expansion is necessary if there is to be a diminution in the underlying pace of inflation. The top panel of chart 8 illustrates our price projection, differentiating between the overall CPI and the CPI excluding food and energy, which is taken here to be a rough proxy for underlying inflation. In the first half of this year, there was a marked acceleration in the total index, but the ex.-food-and-energy portion continued to rise at the same pace as in 1988 -- assuming that there was not a major gyration in June that we have missed. We are projecting some pickup in the rise in this component over the next few quarters, although we think the worst is past for the CPI as a whole.

I should note that the steadiness of the ex.-food-and-energy index thus far this year has been something of a surprise to us, and we have carried through some of that surprise into the forecast. Our suspicion is that the strength of the dollar has played a significant role. Import prices are estimated to have decelerated considerably, as shown in the middle left panel, and this has even greater effects on expenditure price measures like the CPI than on production price measures such as the GNP deflator. Given the projected path of the dollar, import prices should continue to rise relatively slowly and damp domestic inflation until the latter part of 1990. The behavior of the dollar and the projected decline in industrial capacity utilization should help to retard the advance of goods prices in particular, not only at the earlier stages of processing indicated by the PPI data at the right, but also at the finished goods level.

As I indicated, energy and food prices leave a considerable mark on the forecast of overall inflation. The lower left panel shows our assumption that the average price of a barrel of imported oil will fall from the second-quarter average of almost $19 to about $17 by the beginning of next year. The drop in crude prices should show through in a mild decline in consumer energy prices in the second half of this year.

As regards food, we expect to see a considerable slackening in the pace of price increase in the second half of this year and a relatively moderate rise of 4 percent in 1990. With acreage planted up considerably, reasonable weather should produce ample crops. However, for processed foods, rising labor costs will continue to push prices higher.

Chart 9 addresses the outlook for wages. One element affecting the outlook is the size of consumer price increases over the past year and the level of inflation expectations. The Michigan survey for June showed an average 12-month inflation expectation of 5 percent, at the low end of the range since last summer. Actual CPI inflation in the year ended May was 5.4 percent. With a tight labor market and inflation expectations in that vicinity, history would suggest that compensation increases ought to be moving toward the 6 percent plus range -- thereby producing a real gain in line with the trend of productivity. Given the indications from recent experience, however, we have continued to discount these predictions: abstracting from the special jolt associated with payroll taxes and a probable hike in the minimum wage, we have the underlying trend in the Employment Cost Index peaking at between 5-1/4 and 5-1/2 percent by early next year.

Recent wage data -- most notably the monthly average hourly earnings figures -- clearly have suggested that the reported shortages of workers are not translating into dramatic wage increases throughout the economy. But the bottom panels reveal a picture that is broadly consistent with the information on labor market conditions. In the goods-producing industries, there really isn't much sign of wage acceleration, which fits with the fact that employment in that sector has remained below earlier peaks, and with the continuing fear of foreign competition and potential job loss. But in the service-producing sector, where employment growth has been tremendous and labor shortages are most frequently mentioned, the trend of wage and total compensation increases is quite clearly upward. The less unionized segments of the work force typically have exhibited the greatest acceleration of wages as labor markets have tightened cyclically, but we also may be seeing some correction of wage differentials that became exceptionally wide in the 1970s.

In any event, we recognize the uncertainties that exist in this critical area of the forecast, and we have attempted to address them in the next chart, which reports the results of some econometric model simulations. The Baseline scenario here is the Greenbook projection extended judgmentally through 1991 on the assumption that Fed policy will accommodate enough growth in aggregate demand to hold the unemployment rate close to its projected end-1990 level of just over 6 percent. Under that assumption, we would project a deceleration of prices to around 4 percent over the course of 1991 -- as measured by the fixed weight GNP price index. (I might note that, because we also have assumed that the dollar continues to depreciate moderately, the deceleration in domestic expenditure prices -- for example, the CPI -- would be a tad less.)

The two alternatives were generated by altering the model to capture more optimistic and more pessimistic views of prospective wage behavior. There are many ways of doing this, but the one we chose was to shift the NAIRU in the model up and down one-half percentage point. The behavior of wages in the judgmental Greenbook projection may be interpreted as being consistent with a NAIRU of about 5-3/4 percent. In essence, the "less inflation" alternative assumes that the current, 5-1/4 percent, level of unemployment is one that does not cause wages to accelerate or decelerate; the "more inflation" alternative assumes that the NAIRU is more like 6-1/4 percent, about the point where wages in fact began to accelerate noticeably back in 1987. We assumed in both simulations that M2 follows the same path as in the Baseline.

This experiment indicates that, if we follow the Baseline M2 path and wage pressures are less than embodied in the staff forecast, inflation could fall to 3 percent in 1991, with the unemployment rate rising a little less than in the Baseline projection. On the other hand, if wage behavior is less favorable, even with a higher unemployment rate than in the Baseline, inflation in 1991 would be 4-1/2 percent.

In my mind, the results underscore again the question one faces in interpreting the wage pattern of the past two years: Namely, should one read the graphs as showing a general upsweep in wage inflation since the jobless rate reached 6 percent in 1987, or should one place greater emphasis on the surprising gradualness of the wage acceleration and the hints of leveling in the recent period? We believe that our forecast is a reasonable middle road between the two views, balancing the risks in both directions.

Ted will now continue the presentation.

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E.M.Truman
July 5, 1989

Chart Show Presentation -- International Developments

Two opposing elements are expected to exert strong influences on developments in U.S. external accounts over the balance of 1989 and into 1990: first, the strength of the dollar in foreign exchange markets during the past 18 months, and, second, relatively faster growth in the major foreign industrial economies than in the United States.

The top panel in the first chart on international developments shows that the weighted average foreign exchange value of the dollar in terms of the currencies of the other G-10 countries -- the red line -- has appreciated by more than 10 percent in nominal terms since December 1988. The appreciation since the low of December 1987 has been about 15 percent in nominal terms and, as shown by the black line, 18 percent in real terms. As is indicated in the box on the right, the dollar's nominal appreciation so far this year has been most pronounced against the yen and pound sterling, while the dollar has actually depreciated against the South Korean won and the Taiwan dollar.

While the relative rise in U.S. long-term real interest rates in late 1988 and early 1989, as measured and depicted in the bottom panel, probably contributed to the dollar's strength earlier this year, that rise was apparently more than reversed during the past three months. Until the past two weeks, the dollar continued to appreciate on balance in terms of other major currencies. As the data on nominal interest rates in the box on the right indicate, German short-term rates have increased significantly since last December, and Japanese rates have increased marginally, while U.S. rates have eased slightly on balance. During the same period, long-term rates have risen substantially in both Germany and Japan while U.S. rates have declined markedly.

As Sam Cross has noted, some of the dollar's appreciation can be attributed to the influence of various political developments around the world and to short-run financial-market expectations, developments and uncertainties; however, much of the dollar's recent strength is at this point unexplained by fundamental factors. Economists are inclined to label such phenomena as "speculative bubbles" that, by assumption, are destined to burst at some point.

While not quite fully embracing the bubble-explanation, the staff is projecting that the dollar will depreciate at a moderate rate for the balance of the forecast period under the influence of rising interest rates abroad for much of the period, U.S. rates that tend to edge off in 1990, and growing U.S. trade and current account deficits. However, because of the dollar's high average level in June, the dollar's average value in the third quarter may be higher than it was in the second quarter. Thus, in terms of the other G-10 currencies, the dollar is projected to decline after the third quarter of 1989 by about 6-1/2 percent per year in real terms; in terms of the currencies of non-G-10 countries, the decline is expected to be about 2-1/2 percent in real terms.

Turning to developments in other major industrial countries, the next chart indicates in the upper left panel that growth of industrial production abroad continues to be quite robust. At the same time, as shown in the right panel, consumer prices have accelerated under the influence of strong demand, rising oil and other commodity prices, higher import prices associated with depreciating currencies, and special factors -- such as increases in consumption taxes in some countries.

As is shown in the middle panel, non-oil commodity prices have been reasonably stable in dollar terms over the past year or so, but measured in the currencies of other foreign industrial countries they have risen substantially on average.

Against this background, as noted in the box at the bottom of the chart, it is hardly surprising that policymakers abroad continue to be concerned about renewed inflation and capacity pressures. As a consequence, we expect some additional monetary tightening in 1989 in most of these countries, followed by a gradual easing of interest rates in some of them in 1990 as growth slows and inflation declines. However, the easing is expected to be confined only to a few of the countries such as Canada and the United Kingdom; we expect no easing in Germany or Japan. Fiscal policies abroad are expected to be generally neutral, though Germany is scheduled to complete the last stage of its multi-year program of tax reform and reduction at the start of 1990.

As depicted in chart 13, economic developments in the major foreign industrial countries have been, and are expected to continue to be, far from uniform. In the United Kingdom and Canada (the upper left panel), where inflation has risen to a relatively high level, policy, especially monetary policy, has been directed for some time at reducing demand pressures. As a consequence, as is shown in the lower left panel, growth of real GNP has already begun to slow from the high rates achieved in late 1987 and early 1988. In contrast, the upper right panel indicates that the increase in inflation in the other four major industrial countries has been to a more moderate rate, and action to resist inflation has been less vigorous and more delayed. As is shown in the lower right panel, the expected implications for real GNP in these four countries on average are also more moderate, with growth slowing but continuing at a higher rate, on average, than in the United Kingdom and Canada.

For the foreign industrial countries as a group, the growth rate of real GNP, as shown in the red bars in the upper left panel of the next chart, is projected to decline somewhat in the second half of this year but to pick up again in 1990 and to remain on average above growth in the United States. While, as shown in the box at the right, a gap between the growth of GNP and domestic demand is projected to persist through 1990 for the foreign countries as a group, the gap shrinks because the effects of the resumption of the dollar's depreciation is offset in part by the dollar's strength over the past 18 months.

As is shown in the middle panel, the pattern of economic activity in all foreign countries as a group (developing countries as well as industrial countries) is projected to follow that for the major industrial countries alone -- slowing this year and picking up a bit in 1990. Taking a U.S. perspective, slower growth in several key Asian and Latin American markets [China, three of the four Asian NIEs (not Taiwan) and Venezuela] will tend to hold down demand for our exports.

The lower panel presents our outlook for consumer price inflation in the major foreign industrial countries compared with the United States. The influence on foreign inflation of strong demand, higher oil prices, a rising dollar and special factors, as has already been described, results in some narrowing of the differential between U.S. inflation and inflation abroad this year. Next year, most of the factors pushing up inflation abroad are likely to be eliminated or reversed, and growth abroad will slow somewhat from the average pace of 1988 and early this year. As a result, the inflation differential is projected to widen again, as is shown in the box at the right.

The outlook for our exports is illustrated in Chart 15. The top panel shows the recovery in U.S. agricultural exports that has been underway for the past three years and continued through the first quarter, when large shipments to the Soviet Union and China boosted the totals. For the forecast period, the quantity of agricultural exports is expected to remain on a high level, but not to expand substantially further, while prices of these exports, as is shown in the box at the right, remain essentially unchanged this year and rise moderately next year. Several factors serve to hold down the growth in these exports. One is relatively favorable weather conditions in the Soviet Union. A second is the outlook for a record world harvest of soybeans. A third is the strength of the dollar.

After a dip in the first quarter of this year, U.S. exports of computers (the middle panels) are expected to recover and then to expand at a somewhat slower pace than in recent years. Since the prices of computers measured on a quality-adjusted basis are projected to continue to decline at a rapid pace, increases in the value of such exports should moderate.

The pace of expansion of the quantity and value of other non-agricultural exports held up well through the first quarter of this year (the bottom panels); exports of industrial supplies and consumer goods have performed particularly well. However, we project that lower growth abroad and the strength of the dollar will inhibit the expansion of such exports in the future. As shown in the last line of the box at the right, the pace of <u>increases</u> in the quantity of these non-agricultural exports measured in 1982 dollars is projected to slow this year and again in 1990. Meanwhile, the rise in prices of such exports is also projected to slow because of the stronger dollar and lessened upward pressure on prices from petroleum input costs. Consequently, in value terms, the increases in non-agricultural exports retreat to the single-digit range.

On the import side, the next chart, increases in prices of non-oil imports have moderated significantly as the dollar's depreciation was first stopped and more recently has been reversed. As is shown in the upper left box, over the four quarters ending in the first quarter of this year increases in import prices were roughly cut in half in most categories, compared with increases over the previous four quarters. At the same time, as is shown in the box at the right, increases in the quantities of such imports generally have declined or have been quite moderate.

As Mike noted, in the first quarter of 1989, the quantity of imports of consumer goods actually declined, after increasing sharply in the fourth quarter. The timing of imports of apparel and household goods from Hong Kong, Korea and Taiwan probably reflected the influence of the ending of GSP tariff benefits for these countries. However, sluggish U.S. consumer demand probably also played a part. The number of passenger cars imported from both Japan and Germany also declined by more than 20 percent in the first quarter.

The box in the middle panel shows that increases in prices of non-oil imports are projected to moderate further on average over the four quarters of 1989 before picking up in 1990 as the dollar resumes its decline. Meanwhile, growth in the quantity of such imports is projected to be held down by slow demand and, later, by rising prices.

Mike Prell has already presented our assumption about oil prices. The bottom panel illustrates the implication for oil imports. After a dip in imports in the first quarter that apparently was associated with a drawdown in inventories, the quantity of oil imports is expected to have rebounded in the second quarter. It is projected to expand gradually over the balance of the forecast period under the influence of moderate increases in consumption and a continued decline in domestic production. However, as the price of imported oil edges off in the third and fourth quarters of this year, the value of U.S. oil imports should decline somewhat before resuming its uptrend.

Chart 17 summarizes the staff's outlook for U.S. external accounts. The black line in the upper left panel shows the estimated sharp improvement in real GNP net exports of goods and services in the first half of this year. In fact, this was more than accounted for by the improvement already recorded in the first quarter since we think that there was a small deterioration in the second quarter. As the black line in the chart indicates, there is essentially no further net contribution to real GNP from net exports over the balance of the forecast horizon.

Meanwhile, as shown by the red line, the current account deteriorates after the first half of 1989. The deviation between the two series reflects primarily the influence of three factors: First, the resumption of the dollar's depreciation involves at first the relatively strong influence of J-curve effects; import prices rise, and quantities of exports and imports are slow to respond. Second, depreciation tends to depress imports of goods in real terms over time but has little net effect on such imports in nominal terms. Third, imports of services in the GNP accounts exclude interest payments on U.S. government liabilities. Such payments are expected to rise rapidly over the forecast period, and they are included in the current account. However, interest payments on U.S. government securities finance only part of the continuing large current account deficits. Growing net investments in the United States that take other forms must also be serviced. Both forms contribute to the discrepancy between the merchandise trade and current account balances shown in the box at the right.

As you know, the recorded U.S. international net investment position turned negative in 1985 as is shown in the bottom left panel of the chart. Last week, the estimate for the end of 1988 was released -- more than $500 billion. While the Commerce Department took pains to emphasize the measurement errors involved in these estimates, they also correctly emphasized the clear negative trend of recent years -- a trend that is expected to continue. The box at the right illustrates the fact that, while the U.S. current account deficit in 1989 and 1990 is expected to remain in the vicinity of 2-1/2 percent of GNP, our negative net investment position will continue to rise rapidly as a percent of GNP. In fact, if U.S. nominal GNP were to increase at an average annual rate of between 6 and 7 percent, the ratio of our net external debt to GNP would not stabilize until it reached about 40 percent. However, if the nominal interest rate on our external debt were close to the growth rate of GNP, the trade balance would have to continue to narrow as a percent of GNP.

The last chart presents an alternative forecast with an unchanged foreign exchange value of the dollar. As Mike has already stated, for the baseline we extended the Greenbook forecast through 1991, incorporating the assumption of a $25 billion deficit-reduction package in FY1991, M2 growth at 7 percent, and a continuing moderate decline in the dollar. In the alternative forecast based on the staff's econometric models, we assumed that the foreign exchange value of the dollar remains unchanged from its current level because of a stronger autonomous demand for dollar assets than is implicit in the Greenbook forecast. However, because the dollar's recent path ended at a high level in June, this alternative assumption in our simulation produces no effective change in the dollar's value until the fourth quarter.

We also assumed that monetary policy holds M2 growth on the baseline path. This would allow interest rates to decline somewhat relative to the baseline because growth of nominal spending is lower.

The slower growth of nominal spending is composed of both slower growth of real GNP and a more moderate rate of increase in prices. The latter would be fostered by both the direct effects of the stronger dollar and the indirect effects from less demand.

Real GNP abroad would benefit from the dollar's stability because the effects of slower U.S. growth overall would only partly offset the effects of the different composition of that growth because of the dollar's strength -- less U.S. demand for U.S. production and more U.S. demand for foreign goods and services. The counterpart would be found in the U.S. current account deficit which would be about $15 billion larger by the fourth quarter of 1991. Such a reversal of the process of external adjustment might not be sustainable indefinitely though it clearly has been for the short run. It is one reason why the staff's forecast incorporates a resumption of the dollar's depreciation -- at a moderate rate. However, as we have demonstrated in the past, the timing and speed of that depreciation, if it occurs, no doubt will differ from what we have incorporated in our outlook. Moreover, the depreciation could be larger. As a first approximation, a depreciation of the dollar at twice the rate in our baseline forecast would produce outcomes with the opposite signs to those shown -- faster U.S. GNP growth, more inflation, a modest but discernible improvement in our external accounts, and slower growth abroad.

Mr. Chairman, that completes our presentation.